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ABSTRACT

This booklet discusses creativity and provides suggestions for instigating and implementing creativity in organizational settings. Specifically, the booklet discusses practical creativity (also called targeted innovation), an approach to generating ideas especially suited to organizational problem-solving. The targeted innovation process, according to the booklet, can be used to diagnose, generate, and apply different creative approaches to specific problems. The booklet details the five steps of the process: (1) State the problem in a way that encourages creative problem-solving; (2) learn and understand different problem-solving styles; (3) learn and understand the creative pathways and their relationship to problem-solving; (4) generate ideas; and (5) evaluate those ideas. In addition, the booklet contains sidebar summaries, several checklists, and a short list of suggested readings. (WFA)

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Making Creativity Practical: Innovation That Gets Results.

Stan Gryskiewicz
Sylvester Taylor

2003

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IDEAS INTO ACTION GUIDEBOOKS

FOR THE PRACTICING MANAGER

Making Creativity Practical

Innovation That Gets Results

Stan Gryskiewicz and Sylvester Taylor

Center for Creative Leadership

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AN IDEAS INTO ACTION GUIDEBOOK

Making Creativity Practical

Innovation That Gets Results

Ideas Into Action Guidebooks

Aimed at managers and executives who are concerned with their own and others' development, each guidebook in this series gives specific advice on how to complete a developmental task or solve a leadership problem.

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AN IDEAS INTO ACTION GUIDEBOOK

Making Creativity Practical

Innovation That Gets Results

Stan Gryskiewicz and Sylvester Taylor

Center for
Creative Leadership
leadership. learning. life.

The Ideas Into Action Guidebook Series

This series of guidebooks draws on the practical knowledge that the Center for Creative Leadership (CCL®) has generated in the course of more than thirty years of research and educational activity conducted in partnership with hundreds of thousands of managers and executives. Much of this knowledge is shared – in a way that is distinct from the typical university department, professional association, or consultancy. CCL is not simply a collection of individual experts, although the individual credentials of its staff are impressive; rather it is a community, with its members holding certain principles in common and working together to understand and generate practical responses to today's leadership and organizational challenges.

The purpose of the series is to provide managers with specific advice on how to complete a developmental task or solve a leadership challenge. In doing that, the series carries out CCL's mission to advance the understanding, practice, and development of leadership for the benefit of society worldwide. We think you will find the Ideas Into Action Guidebooks an important addition to your leadership toolkit.

Table of Contents

7 **What Is Practical Creativity?**

8 **Why Is Practical Creativity Important?**

10 **Making Creativity Practical**

Stating the Problem

Understanding Approaches to Problem Solving

Seeking the Right Creative Path

Choosing the Right Creative Path

Generating Ideas

Evaluating Ideas

27 **Making a Place for Creativity at Work**

30 **Suggested Readings**

30 **Background**

31 **Key Point Summary**

Executive Brief

Creative solutions can be challenged and defended in the pursuit of profitability. But first, creativity must be demystified. A process that targets innovation provides leaders with just such a problem-solving approach. The goal is to produce high-quality ideas that are appropriate to the task – which means groups and organizations can implement them with less risk.

Work with the targeted innovation process consists of activities in five areas: stating the problem in a way that encourages creative problem solving, learning and understanding different problem-solving styles, learning and understanding creative pathways and their relationship to problem solving, generating ideas, and evaluating those ideas.

Targeted innovation reconciles creativity with management. Managers can use it to solve problems that meet their organization's call for innovative answers to current challenges.

What Is Practical Creativity?

Creativity is the ability to produce novel ideas, not the ability to reproduce existing ideas with only minor variations. So what is "practical" creativity?

Simply put, it's an approach to generating ideas especially suited to organizational problem solving – a kind of *targeted innovation*. In its initial stages, the only leadership required is to push a team's thinking beyond obvious answers. Any attempt at managing the process, except for encouraging freedom, may kill it. Once the team has generated ideas, they can be evaluated with an eye to practicality and other concerns. That is when management becomes important.

The targeted innovation process can be used to diagnose, generate, and apply different creative approaches to specific problems. The goal of the process is to produce high-quality ideas that can be implemented without undue risk because they are appropriate to the task. Managers can view the process as a series of steps, although there's a good deal of flexibility in moving from one to another.

1. State the problem in a way that encourages creative problem solving.
2. Learn and understand different problem-solving styles.
3. Learn and understand the creative pathways and their relationship to problem solving.
4. Generate ideas.
5. Evaluate those ideas.

Why Is Practical Creativity Important?

Organizations hold their managers responsible for results. They also look to their managers for innovative ideas. In that kind of climate, success, even survival, requires renewal – and renewal demands creative thinking. But it can be difficult for individuals in organizations to embrace creativity because it can be a hard thing to manage. Creativity requires a free hand to explore new ideas. Organizational challenges often require fast answers. Balancing those needs, making the right trade-off, requires leadership and innovative tactics.

Every successful manager can find original and helpful solutions. To remain successful, managers must be adept at solving problems, whether they are the usual challenges of working more efficiently with fewer resources, for example, or challenges of a more unusual kind – finding a new way to frame a problem, to define a product, or to take the organization into a different area of endeavor. There is no single best creative problem-solving method. But targeting innovation to make the creative process controllable and predictable can help managers solve problems in a way that's timely and dependable.

Every organizational challenge is unique in terms of its details, the context of the organization's culture, the willingness of work groups to embrace the give and take of ideas, and the support the organization gives to the hunt for new solutions. As a technique, targeted innovation enables leaders to manage a creative process so new ideas come faster and can be implemented to solve specific problems.

Even if the organization ardently supports innovation, the creative process has never fit easily into the manager's world. It's a

The Practical Truth of Creativity

Organizations must discover ways to foster creativity, because the practical truth is that it leads to future success. Practical creativity reconciles creativity with management. It is linked to the context of problem solving, grounded in reality, and focused on productivity. It differentiates between types of creative ideas, specifies the factors that determine when one type of creativity is more likely than another to be productive, provides directions for producing those ideas, and offers tactics for evaluating them.

process not often nor clearly linked to the job of management. In the past it was often seen as aesthetic, not productive. It was often regarded as a luxury that managers could not afford. Few organizations would take that stance today. The pace of change is too rapid, the global marketplace too splintered, the rush of information too great, and the demands of clients and customers too unpredictable for any organization to ignore the necessity of creativity. That reassessment of creativity's value casts it as ensuring long-term renewal. Leaders who can't spark creativity in others and also deliver results surrender the wealth of their organization to their competitors.

Managers are often trained to minimize risks and to value predictability. These are important to the short-term survival of an organization. Creativity is risky and unpredictable, but it's essential to long-term organizational success. Managers can use targeted innovation to make creativity a more efficient problem-solving process by altering it to more closely align with the organization's current challenges.

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Making Creativity Practical

There are many idea-generation techniques. Choosing the right one for a particular situation can be daunting. Managers can start by linking the creative process to their organization's call for innovation. They can state the problem in a way that encourages creative problem solving, for one. They can learn the differences between types of problem solving, for another. Managers can also determine what creative path is best suited to solving the problem, get their work group or team to generate ideas, and then evaluate those ideas to find the ones most likely to produce results. This is the essence of targeted innovation.

Stating the Problem

Problems and challenges make themselves known to managers and work groups in many ways. They can come informally, such as tips gleaned from the suggestion box. They can come from monitoring an external source – changes in the marketplace or a competitor's new release, for example. Or they can be delivered more formally, as implied in a task the organization has assigned. Consider, for example, the problems and challenges imbedded in these instructions as communicated by the organization.

- Reduce manufacturing costs by 10 percent.
- Find a new use for an obsolete machine or process.
- Envision our manufacturing process five years from now.
- Cure a bottleneck that affects two critical processes.

Learning about a challenge is one thing, but stating the problem can be a little more complex. The language and style of the problem statement are vitally important because they set the stage for the ideas that will eventually bring about a solution. Simply

laying out a mandate – reduce costs by 10 percent, for example – to the work group or team designated to solve the problem restricts creative thought. Instead, it's more effective to state the problem plainly, without value judgments and implied solutions, and in an open-ended style that encourages many possible answers. For example, if you were assigned to solve a bottleneck problem at your organization's shipping and receiving facility, you wouldn't want to state the problem to your group as: "How can we get those lazy dockworkers to move faster?" Use the samples below as a guide to stating the current problem your group faces. An open-ended, careful wording of the problem statement can often be enough to generate the creative ideas you need.

Organizational challenge/problem	*Creative problem-solving statement*
Reduce manufacturing costs by 10 percent.	How can we reduce the high cost of manufacturing?
Design a manufacturing process we can implement in five years.	How can we manufacture our products differently?
Find a new use for an obsolete machine or process.	How can we make money from an obsolete product or process?
Process A generates twice the output that process B can cope with in a shift. Relieve a bottleneck that occurs between these two critical processes.	How can we put twice as much into the same space?

By avoiding problem statements that imply a solution, you open the way for unexpected perspectives and solutions. Part of the benefit to creative problem solving is its tendency to take an organization into areas that it hasn't explored. Even if one answer doesn't

solve the immediate problem, it adds to the organization's intellectual capital and perhaps even helps to produce new services, processes, perspectives, and products.

Understanding Approaches to Problem Solving

Because it starts with an open-ended problem statement that encourages unrestricted creativity, the targeted innovation process accounts for many ways to solve a problem. Fortunately, managers don't have to start with an unlimited number of solutions. It's much easier if they think of solutions as falling into either one of two archetypal styles of problem-solving approaches: *incremental* and *breakaway*.

Incremental approach. This approach might be best understood by remembering the coastal sailing route Europeans once took to the East around the horn of Africa. This route meant that ships were never out of sight of land. It was an extension of earlier voyages of discovery down the west coast of Africa. Similarly, when it comes to solving a problem, some people choose to improve on the original idea or perform a process better while never really changing their initial approach. The incremental approach is the more orthodox way to solve a problem.

Breakaway approach. This approach might be explained best using another sailing example, this time Christopher Columbus's inspiration to sail west to reach the East. European sea voyages in the fifteenth century rarely sailed far from the sight of land, and ocean-crossing voyages were virtually unheard of. What spice or riches could justify taking such unknown risks? Like Columbus, some people challenge the definition of the problem, go outside it, and prefer to not know from the start what the answer might look like in order to see everything in a new way. The breakaway approach is the less orthodox way to solve a problem.

Understanding the difference. For a clearer understanding of just how different these two approaches to problem solving are,

think about the different methods of solving the problem posed by Rubik's Cube. Rubik's Cube is a puzzle in the form of a cube composed of 26 small, colored cubes (six different colors). The small cubes comprise the six faces that make up the bigger cube, and the faces rotate as one unit. Solving the puzzle requires the player to make each face of the cube the same color (one orange face, one green face, and so on).

Many people try to solve that problem in an incremental way, twisting parts of the block until the faces of the cube are one color. It can be solved, generally, by spinning the central section 90 degrees, then the bottom section 180 degrees and so forth. A breakaway approach, however, provides a new set of possible solutions. Plenty of people have peeled the color decals from the small cubes and rearranged them so the faces have a uniform color. Others have broken the cube apart and reassembled it to display the solution.

People have the capacity to use either problem-solving style. Each approach has its own advantages. Without the incremental approach we would have to start from scratch every time we wanted to solve a problem. On the other hand, if we assume that any problem is never beyond examination, we might never entertain such ideas as magnetic-levitation trains or hovercrafts. It can be useful to think of the incremental approach as the test bed on which the breakaway solution is tried. A balanced approach, in which a manager can entertain and consider both incremental and breakaway approaches, leads to the greatest degree of creative flexibility and sound solutions.

Understanding the space between. There probably is no absolutely pure incremental or breakaway approach to solving problems. There is a bit of the novel in the most mundane incremental approach, just as there is a hint of the orthodox in the wildest bit of breakaway thinking. The space between the two approaches forms a continuum through which several creative

pathways can travel. To make the most of the targeted innovation process, it's helpful for managers to think of four creative categories that demonstrate how one problem-solving approach verges on another. They can then appreciate how different pathways can direct creativity toward the most productive solution.

Seeking the Right Creative Path

Almost by definition, creativity is boundless in its reach and direction. In making creativity practical, however, it's useful to see creativity moving along four different pathways, each passing through the continuum between the incremental and breakaway problem-solving styles at a different place. Each pathway reflects a different amount of liberty that problem solvers take when looking for a solution.

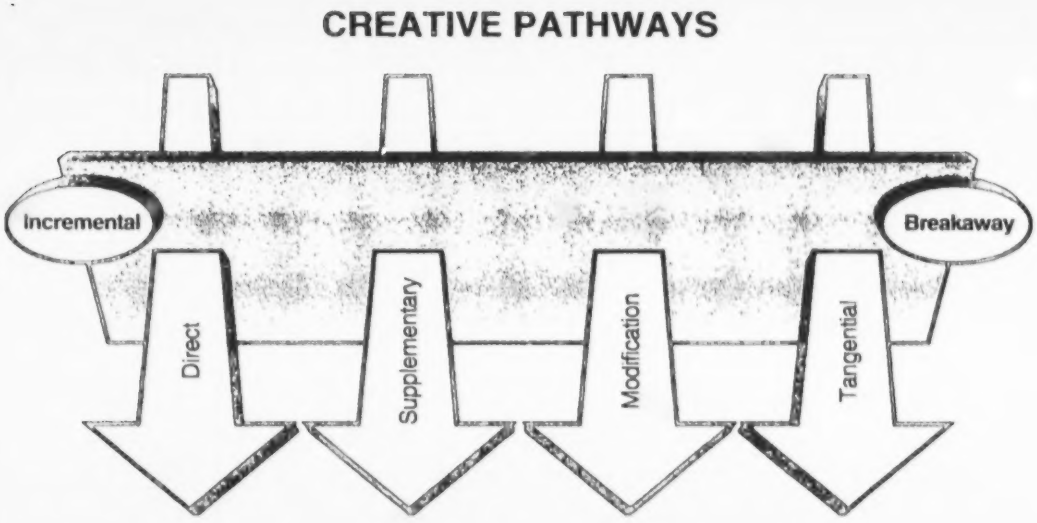
For example, imagine that you work for a company that makes products designed to contain other products. The company operates a large facility with a dozen machines that make tea bags. For a time, the organization prospers. But then tastes change, the marketplace embraces coffee, and you discover that your organization has excess capacity for making tea bags. The machines haven't been around long enough to pay for themselves, so the vice president in charge of tea bag manufacturing comes to you, a manager in her division, with this simple question: "We have spare capacity for producing tea bags. What are we going to do?" Based on this scenario and with an eye on our practical creativity process, solutions could travel along any of four pathways.

Direct – most incremental. Solutions that pass through the most incremental end of the problem-solving method continuum directly address the question, What else can be packed into a tea bag besides tea? The answers that come from your team tend to focus on another food or beverage. Examples include bags containing coffee, fruit drinks, sugar, and spices. All of these are different from tea, but the bag continues to function as a disperser.

Supplementary – less incremental. Slightly less incremental solutions move toward the breakaway side of the range. The group's ideas might involve a new use for the package, but the package remains essentially unchanged in shape and size. Proposed solutions might include putting shoe polish in the bag and using the bag as an applicator; using the bags as protective cases for jewels and gems; and filling the bags with concrete or plaster and using the bags themselves as patches. This creative pathway provides a peek outside the box of orthodox thinking. All of the ideas involve a paper bag of small size, all tolerate or require a water-permeable paper material, and all assume that the bag's contents and the bag function as a single unit. The creative mind of the team is beginning to open up to a wider world.

Modification – more breakaway. This creative pathway is located toward the breakaway end of the continuum. Following this path, team member ideas might involve a structural change in the tea bag package, such as modifying its shape or size but still keeping the bag as a container of some sort. For example, changing its shape so that the bag would fit inside a shoe and then putting a shoe pad in the bag; making the bags into pillowcases; filling bags with fiberglass insulation; using the bags as upholstery for beanbag chairs; or using a large, continuous bag as a means of delivering seeds and fertilizer to lawns. As the creative ideas move into the breakaway side of the continuum, the team changes the bag's purpose, shape, and even physical traits to deliver a solution.

Tangential – most breakaway. Farthest from the incremental end of the problem-solving method is the creative pathway that reflects the most breakaway solutions to the challenge. Creative ideas flowing down this pathway have little to do with the question, What else can be packed in a tea bag? In fact, many of the ideas specify not putting anything in the bag at all but using the paper material itself to make such things as curtains, diapers, or clothing. Another breakaway response is to get rid of some of the



tea bag machines by selling them to a competitor or to a small herbal tea company, reducing the organization's excess capacity.

Between the incremental and breakaway approaches to problem solving are a variety of possible paths and solutions. Each of the approaches has strengths and weaknesses. How can you begin to decide which target your team should aim for?

Choosing the Right Creative Path

Managers aren't likely to know what creative solution they would like to end up with. In fact, managers should give their work groups and teams free rein at the beginning stages of the targeted innovation process to avoid prejudging the outcome. What managers do know, however, and in fact are responsible for knowing, are the constraints that the organization will impose upon the solution. That knowledge helps managers identify the boundaries within which the solution is likely to be found. For example, solutions frequently have a time and budget constraint: it must be solved in the next six months, or it must cost 10 percent less than it does now. The manager who knows the organizational constraints dictate that the solution must cost about $30,000 and be implemented in five months can strike a course in the appropriate direction. That choice

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is an essential part of targeting innovation as it guides you to the path most likely to take you to your destination.

To select an appropriate, efficient route to solving the problem, managers can look for several landmarks that indicate the location along the incremental-breakaway range their work group or team needs to look for a path to a solution. The following list of questions – not complete by any means – defines factors that can influence whether the solution is likely to be found at the most incremental end or at the most breakaway end. Locating the right path also helps managers with the last step of the practical creativity process – generating ideas in a way that's matched most closely to the chosen creative pathway.

What can you afford to spend? The more time and money you have, the freer you are to break away from the problem for entirely new solutions. But because this path brings answers that may be untested and unfinished, it is less efficient when time and money are short. If your team is on a tight schedule and budget, a pathway closer to the incremental end of the problem-solving method range might work best. Keep in mind, however, that it's good to remain as open as possible at every step of the process. You may be impossibly short on resources, and it may be clear that the old ways of doing things don't work – leaving you no other alternative but to try a radically different solution and hope that you can make it quicker or cheaper.

What can you afford to lose? The breakaway approach is riskier than the incremental approach. If you have some sort of insurance that can buffer you in case your solution falls through, then you may decide it is worth risking money, time, and even credibility on radical approaches. Or you may be in a situation that causes you to decide you will lose everything if you do not do something radical. In a case like that you may need a breakaway approach and the heart of a gambler.

How often have you fixed this problem "once and for all"? A recurring problem suggests that the approaches you've used in the past have led to incomplete or insufficient answers. A willingness to try a different, more radical approach – to take a path at the breakaway end of the problem approach range – may lead to the real solution.

Who has to like the solution? Consider the expectations of bosses, clients, and the people in the organization who will have to implement the solution. It makes sense to choose the creative path most likely to generate an idea that will gain their approval and cooperation. When it's important to stay on the side of credibility, an incremental approach is advised. When the task is to do something really different, a breakaway approach is helpful.

How late is it? Early in the project phase (or in the phase of a process design) is the time to be open to radical exploration of all the ways that a project can be done. At that stage you can move down pathways closer to the breakaway end of the range. It can be very disruptive to decide, after many plans have been drawn and construction started, that there is a better way. As deadlines approach, only incremental pathways are likely to be productive.

How bad are things? The answer to this question often polarizes the choice of creative pathway, pushing people toward the extreme in either the incremental or the breakaway direction. During a crisis, for example, some people will try anything to survive and gladly traverse creative pathways toward breakaway problem-solving approaches. Other people, when faced with the same dire circumstances, will dearly hold on to what they know best and stick to incremental approaches to solve the situation's challenges.

How good are things? When things are going well, there is little perceived need for dramatic change. Change for the sake of change is foolhardy. Be aware of any anxiety that makes you prey

to the radical ideas of competitors. Sometimes the cutting edge doesn't refer so much to the leading edge as it does the bleeding edge. Your organization's clients and customers, its stakeholders, and its workforce may be looking for an incremental path to steady growth, not for a breakaway path that puts the future up for grabs.

Your answers to any or all of these questions may have an impact (and sometimes conflicting impacts) on your choice of a creative pathway and the type of problem-solving approach you think will be most productive. It's up to you, as a leader, to judge in some way which answers are most important and which path is appropriate in your situation. Once your assessment is complete, and you have chosen a problem-solving approach and the pathway that will lead you there, the only thing that remains is getting to your destination – encouraging the creative process and harvesting innovation.

Generating Ideas

You and your team are now on the pathway to a creative solution to your problem. But where are the ideas going to come from? Several techniques are available to you. Some of them involve getting out and away from familiar surroundings. Others have unusual requirements for physical activity. And there are some techniques that require almost nothing out of the ordinary – just a meeting that on the surface is practically indistinguishable from any other working meeting (including both face-to-face and virtual meetings).

The guidelines here explain some common idea-generating exercises that can help you and your work group move down the creative pathway you have chosen. No matter which one you choose, it's absolutely important that you state the problem so that all of the group members understand it. A fundamental consideration in your choosing an idea-generating technique is the kind of

problem-solving approach you have judged to be appropriate to the situation. Each technique tends to produce ideas that cross the range between incremental and breakaway at different spots.

Brainstorming. Most people are familiar with this idea-generating method. However, some misunderstand *brainstorming* as meaning "free-for-all." Despite it's somewhat chaotic style, brainstorming does have rules.

- Suspend judgment – positive or negative – of any idea (failure to follow this rule is the major reason why some brainstorming sessions do not produce the needed results).
- Encourage freewheeling – the wilder the idea the better.
- Generate a large number of ideas; stress quantity over quality; value all ideas equally.
- Cross-fertilize or build on each other's ideas; generate ideas using previous ones as launch pads; encourage people to steal, adjust, or invert ideas already presented.

Brainstorming results in a higher percentage of products that fall in the middle of the problem-solving range, a mix of moderately incremental and moderately breakaway ideas. As anyone knows who has taken part in brainstorming sessions, they are frequently punctuated with humor. Humor tends to encourage the group to break "rules" that frequently inhibit it so that group members feel free to pursue more tangential ways of solving the problem.

Brainwriting. In this idea-generating process, participants write down several ideas on different pieces of paper and then regularly exchange papers, keying new ideas off ideas already on the list. Unlike in brainstorming, there is no talking in a brainwriting session. Participants can write new ideas or modify ideas already on the paper in front of them. The papers can circulate through the group as often and as long as you want. The rules of

The Brainstorming Trap

Brainstorming is a tried-and-true technique for getting ideas that lead to problem solutions, but it has one significant pitfall. If you ask people to name a color and a fruit, most of them will say *red* and *apple*. Many other first responses are similarly predictable. If you end a brainstorming session too soon, you will have recorded a completely nonrandom and uncreative list – the first thing that comes to people's minds is rarely the most creative. Go ahead and record first responses as they come in, without making a judgment. But keep stating the problem, and tell the people participating in the brainstorming session that things already mentioned are off limits. You will start getting different responses, and after a few more rounds the ideas in the room will really begin to go afield.

The lesson in this example is that brainstorming sessions have to go on long enough to encourage people to branch out from their knee-jerk responses. Leading a brainstorming session is something like cooking popcorn in the days before microwave ovens – shake long enough to get the kernels hot, cook as long as the energy is high and the popping sounds are coming fast and furious, and stop only when the energy and the popping sounds begin to dwindle.

brainstorming also apply to brainwriting. When people start laughing or act surprised by what they see on the pages, you have probably begun to dig beneath the mundane to more creative answers.

Brainwriting produces a higher percentage of direct responses. Because spontaneous group interaction is difficult in this nonspeaking technique, there is less pressure for group members to spur themselves on to ideas outside of the original problem statement. Although it permits the sharing of ideas, this technique isn't as free-form as some other techniques. Limiting people to written responses sometimes restricts how completely they are willing to express an idea. It can generate a more restrained style of creativity

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that moves along a path at the incremental end of the problem-solving range.

This technique has the advantage of not requiring that the people attend a face-to-face meeting. It lends itself to e-mail, although those exchanges will have to be moderated to keep group members on task. One way to manage that kind of electronic process is to have each participant reply to the moderator, who takes charge of sending ideas to the next person in the group. In addition to e-mail, specialized software programs can assist in this kind of group collaboration.

Restating the problem. As Yogi Berra once said, "It's déjà vu all over again." This technique takes your group back to the original problem statement with the directive to state what they think the real problem is. For example, "Upper management says we need a more reliable lubricant for our factory engines, but what is the real problem? Is new oil the solution, or do we need new engines? Is there something that works better than oil? Can we reduce the heat and friction in the engines to make the lubricant more effective?" Restating the problem often leads to new perspectives on the problem and new approaches that might be more effective in developing a solution.

Perspectives. With this technique, the group uses a list of frameworks to stimulate idea generation. By searching through different perspectives, the group can find situations analogous to its present situation, or a problem parallel to its own challenge. Alternative perspectives can lead to ideas that can be transferred to a solution for the original problem.

Metaphor. This kind of approach lies at the heart of many creative problem-solving techniques. Working on disguised problems (problems represented in a metaphorical way) can reduce internal censorship, introduce a novel mind-set, and lead to new and valuable ideas – often breakthroughs. How does a group

Tread Lightly and Avoid Killer Phrases

Creativity can be difficult to spark, and it can be killed quickly. Sometimes group members will spend time scanning the leader for subtle cues, and censor their contributions according to what they perceive. *If you are leading an idea-generating session, put yourself* in the position of secretary, recording ideas on a white board or presentation chart so people can see them as they emerge. Another role you can play to enhance creativity is to reinforce the notion that ideas aren't owned by the person who brings them up but by the group, and so can be changed at any time and without judgment. One cynical or sarcastic remark can derail an entire session. Some phrases that can kill creative sessions include

a good idea, but . . .

against company policy

alright in theory

The old timers won't use it.

It's not good enough.

We've been doing it this way for a long time and it works.

Why hasn't someone suggested it before if it's such a good idea?

Let's sit on it for a while.

Who else has tried it?

Be practical.

We've never done it that way.

It needs more study.

ahead of the times

It's not part of your job.

Let's discuss it.

Let's form a committee.

costs too much

too hard to administer

It's not budgeted.

Don't start anything yet.

Let's take a survey first.

Let's get back to that.

stimulate its imagination to seek powerful metaphors and relate them to the problem at hand?

The first step is to try and find another context from which one might derive analogies. Metaphoric content can be found in the imagination of individuals in the group. It can also be found in the

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results of the perspectives exercise described previously or from the list on page 28. If it adopts the latter approach, it's most helpful if the group chooses a context with which it is somewhat familiar. For example, suppose your group is trying to find a way to sell panty hose to men. It might examine its perspectives list and choose "diplomacy" as a metaphoric context.

The next step is to restate the problem using the new context. The group should aim for a problem statement that is parallel to its real problem in some significant way. If, in our example of selling panty hose to men, your group chose "diplomacy" as a perspective, it might ask, How do we get the enemy to wear our uniform? or, How do we negotiate and overcome fear?

The third step is to make the metaphorical statement the subject of a brainstorming session. And finally, the last step in using the metaphor technique is to connect the metaphoric responses to possible solutions to the original problem.

Excursion technique. This creative exercise tends to generate a high percentage of breakaway ideas. It's not surprising that an approach that purposefully takes problem solvers so far from the problem results in solutions that are quite distant from the original problem definition. The idea behind this technique is to get the group's mind off the problem at hand so the ideas flow more freely. An excursion can be as simple as having group members close their eyes and visualize ideas and solutions, or it can be as involved as a trip to another location. Some samples of excursions are listed below, but you can be as creative as you like and invent your own.

Visual connections. Gather a collection of photographs, designs, or other images cut from magazines and other sources. Make sure to have a mix of single subjects and busy, complex scenes. Here are a few tips for choosing images.

- Full-page, high-quality color photos are best (avoid illustrations).

- Avoid advertisements, celebrities, famous places, or pictures with words.
- Look for interesting, unusual, or paradoxical photos.
- Gather five times as many pictures as you need so you can replace them from time to time.

You can project these images on the wall or a screen or make color copies of them and give everyone a folder. Members of the group will use these images to take their minds off the problem so they can develop related thoughts and information, and unusual ideas or novel lines of thinking. Give everyone a notepad and have them write down anything the pictures make them think of. Have them share ideas aloud as the group flips through the images. Participants are encouraged to build on ideas and images of others.

The field trip. Take the group out of the office. This isn't a trust- or team-building exercise, so rock climbing and similar adventures are probably not what you want. Instead, go to the local college library – send everyone off for a book, the only rules being that it can't be a book directly related to the current problem and it can't be a book they've ever read. If the book has pictures in it, so much the better, but primarily you are looking for unexpected insights, so some random collections of text would be fine. A local zoo is another possible destination. Ask everyone to keep notes on their thoughts as they look at the animals, the facilities, and the other visitors. Visit a traveling show at an art museum or a gallery opening. A scavenger hunt in the woods of a local park would also work. Have everyone bring back something that caught their attention – a leaf, a feather, a lost article left behind by another visitor, for example. Then gather the group to share its thoughts about the things it collected. As group members share their impressions and ideas, ask them to relate them to the problem at hand.

Future fair. For an excursion that's totally out of the ordinary, try an imaginary trip to the future. Tell group members to imagine

that the problem they're working on has been solved in the best way possible. Their task is to find out what the solution was by interviewing someone on the team that devised the solution. Everyone in your group can put together a list of questions that they would ask were they to have the chance. Examine the list of questions for insights into solving the problem.

Novel scenarios. Use this technique to guide your group through a visualization process. If you aren't confident in your ability to do this, bring in a facilitator to help you manage the session. During the exercise, group members close their eyes and visualize as sharply as possible a guided fantasy. For the purposes of generating ideas, the fantasy is less important than the visualization. A simple, meandering tale of a traveling storyteller wandering from town to town, for example, is about all the story you need. You might use the story to tell of how the traveler comes to one town and finds people idle after the harvest but with no money for needed items of trade. In the next town, he finds people with lots of gold but hungry because of a bad harvest. He solves both problems by sharing the news between the towns – the one with money and the one with foodstuffs. In a third town the traveler encounters people who have a problem similar to the one your group is required to solve. Then he wanders off to a fourth town. Ask the people in your group to imagine what he finds there.

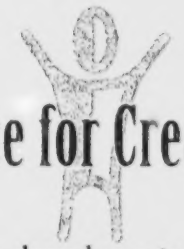
As the exercise continues, each group member generates novel scenarios, which increases the number of stories and stimulates the group's thinking. Record the scenarios in a way that allows them to be shared with the group, and then ask the group to restate the original problem. The juxtaposition of the novel scenarios with the problem statement forces idea generation into new areas, which increases the chances that the group can find solutions outside of the usual answers.

Evaluating Ideas

Stating your problem, choosing the right creative pathway, and generating ideas for a solution will move you and your work group toward achieving the results you need. But to really target your innovations you have to devise a way to evaluate the ideas. An evaluation process helps you to

- screen, synthesize, and separate ideas
- gain support for promising ideas
- select ideas appropriately
- sell ideas to others in the organization

Simple tools, such as those on page 29, can help you examine and rank ideas according to their usefulness and cost, and according to their acceptability and the difficulty of their implementation. This last step truly turns the creativity process into a tactic of targeted innovation.



Making a Place for Creativity at Work

Creative problem solving is deeply entrenched in what it is to be human. It's in our DNA. Any ten human beings picked at random have the capability for it. The team or work group you depend on every day for producing results is the same team you can tap for creative problem-solving. Any group can be counted on to be creative, and its efforts can be made practical by following a few simple guidelines: state the problem in a way that stimulates creative thinking, choose the creative pathway that promises results, don't interfere with a creativity session when it's in full swing, and have a plan for evaluating ideas so that a solution can be implemented.

Despite strong opinion and conventional wisdom to the contrary, it's possible to guide parts of the creative process toward results that organizations can implement. That's good news, because sometimes it's the only kind of creativity that is practical for managers who are responsible for solving an organizational challenge.

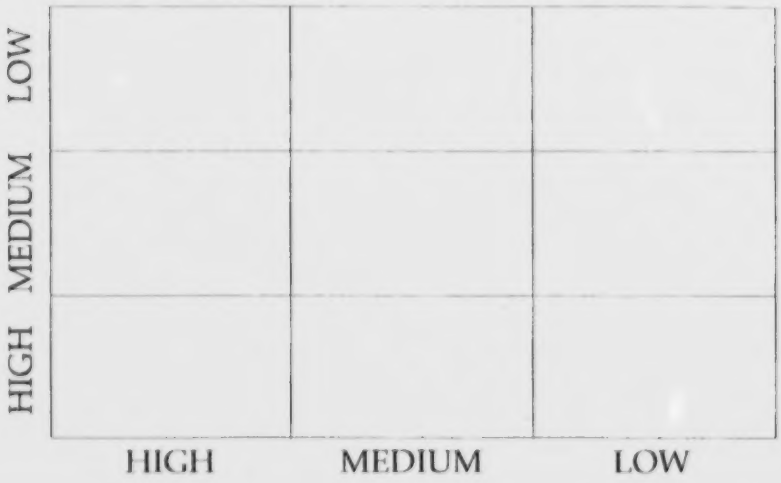
Perspectives That Can Unleash Creativity

The following list (far from exhaustive) can stimulate idea generation if you use it to suggest other perspectives on situations or problems analogous or parallel to the one your group faces.

- clocks
- biology
- tribal customs
- tennis
- fashion
- meditation
- fiber optics
- cooking
- folklore
- flowers & plants
- gambling
- the arts
- fraternities
- zoos
- farms
- seasons
- spying
- consumerism
- engineering
- diversity
- "down town"
- diplomacy
- films
- holidays
- magic
- archaeology
- hospitals
- science fiction
- micro-processors
- time
- religions
- holography
- finance
- physics
- fabrics
- the countryside
- foreign countries
- assembly lines
- chemistry
- foods
- school
- stars
- football
- photography
- crafts
- rocks
- buildings
- weather
- terrorism
- flying
- astrophysics
- winemaking
- space travel
- automobiles
- antiques
- endocrinology
- romance
- economics
- virtual reality
- toys

Usefulness–Cost Assessment

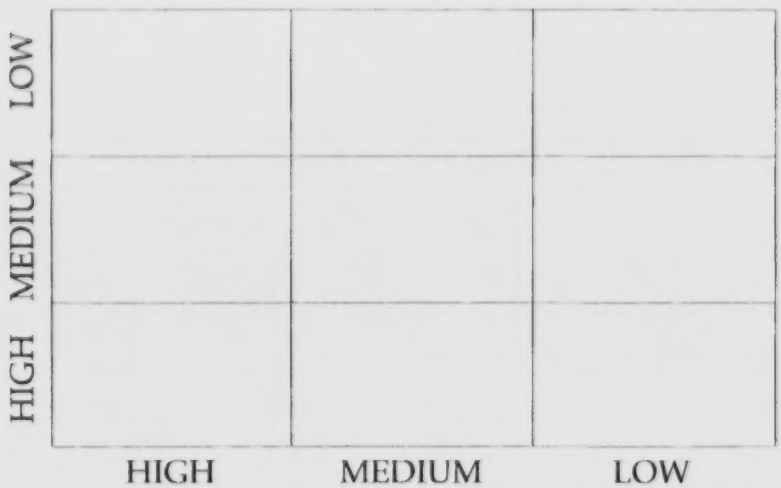
Usefulness. Plot ideas according to how successfully they meet needs, provide benefits, or effectively solve the problem.



Cost. Plot ideas according to how much they will cost to develop and implement.

Acceptability–Implementation Assessment

Acceptability. Plot ideas according to how well they fit with the client, the organization, or current strategy.



Implementation. Plot ideas according to how hard it will be to implement them, including the time involved, control required, and staff and systems needed.

Suggested Readings

DeGraff, J., & Lawrence, K. A. (2002). *Creativity at work: Developing the right practices to make innovation happen.* San Francisco: Jossey-Bass.

Dundon, E. (2002). *The seeds of innovation: Cultivating the synergy that fosters new ideas.* New York: AMACOM.

Gryskiewicz, S. S. (1999). *Positive turbulence: Developing climates for creativity, innovation, and renewal.* San Francisco: Jossey-Bass.

Gryskiewicz, S. S., & Hills, D. (Eds.). (1992). *Readings in innovation.* Greensboro, NC: Center for Creative Leadership.

Osborn, A. F. (1963). *Applied imagination: Principles and procedures of creative problem-solving.* New York: Scribner.

Palus, C. J., & Horth, D. M. (2002). *The leader's edge: Six creative competencies for navigating complex challenges.* San Francisco: Jossey-Bass.

Parnes, S. J. (1992). *Source book for creative problem solving: A fifty-year digest of proven innovation processes.* Buffalo, NY: Creative Education Foundation.

Background

Since its beginning in 1970, the Center for Creative Leadership (CCL) has worked with thousands of managers and hundreds of organizations to develop and hone leadership skills by helping them learn from their experiences so they can put those lessons to work. Since that time, CCL has made it clear that creative activities are an integral part of leadership development, and has worked to demystify the creative process. That work led to the creation of the Targeted Innovation (TI) program, which gave leaders the tools to define problems, lead idea-generating sessions, and then evaluate ideas to find new solutions that promised results. What distinguished the TI approach to problem solving is that it allowed managers to be more practical and to focus on a specific challenge,

and was not designed as a free-for-all brainstorming training session. That meant that the solutions managers derived from the program had a high degree of success potential.

The knowledge behind the TI program still resides in CCL. It remains available to organizations that want to make creative problem solving part of their innovation strategy.

Key Point Summary

Creativity is crucial to an organization's survival. Managers know this, and often they are responsible for instigating and implementing creativity in their organizations because they are called to solve problems and deliver results. A process of targeted innovation can help leaders guide creativity in a way that produces answers that the organization can implement.

To make creativity practical, managers will want to carry out five related activities. One, they will want to state the problem in a way that encourages creative problem solving. Two, they should become familiar with different problem-solving styles. Three, they should learn and understand creative pathways connected to problem-solving styles in order to set a direction for their innovation efforts. Four, they need to lead their teams or work groups in generating ideas. Finally, leaders will want to evaluate those ideas to select the ones that are most likely to be effective.

Targeted innovation reconciles creativity with management and is linked to the context of problem solving, grounded in reality, and focused on productivity. Managers can use that process to solve problems efficiently and to manage the problem-solving process by altering it to more closely align with the organization's current challenges.

Ordering Information

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FOR THE PRACTICING MANAGER

Making Creativity Practical

The process of practical creativity provides leaders with an especially nimble problem-solving approach. The goal of the process is to produce high-quality ideas that are appropriate to the task – which means groups and organizations can implement them with less risk.

LEAD CONTRIBUTORS

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Sylvester Taylor is director of the Assessment and Development Tools group at CCL. During his tenure he has applied the process of targeted innovation to a variety of situations in many different organizations. He holds a B.S. degree from the University of North Carolina at Chapel Hill.

The Center for Creative Leadership is an international, nonprofit educational institution whose mission is to advance the understanding, practice, and development of leadership for the benefit of society worldwide. We conduct research, produce publications, and provide a broad variety of educational programs and products to leaders and organizations in the public, corporate, and nonprofit sectors.

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